

## CLAIMS

I claim:

1. A composition comprising a colloid particle comprising at least one electron transfer moiety (ETM).

2. A composition according to claim 1 wherein said particle further comprising a self-assembled monolayer (SAM).

3. A composition according to claim 1 wherein said colloid further comprises at least one covalently attached nucleic acid.

4. A composition comprising a colloid particle comprising a covalently attached conductive oligomer.

5. A composition according to claim 4 wherein said colloid particle further comprises at one ETM.

6. A composition comprising a colloid particle comprising:

a) a SAM;

b) a capture probe;

c) an amplification sequence; and

d) a label probe hybridized to said amplification sequence, wherein said label probe comprises at least one covalently attached ETM.